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Rivellia basilaris (WIEDEMANN) (Diptera, Platystomatidae)
and its Allied Species in East Asia I

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Abstract The following four East Asian species of *Rivellia* are described or redescribed: *R. basilaris* (WIEDEMANN), *R. flaviventris* HENDEL, n. stat., *R. magniclypeata* n. sp., and *R. nigrioccipitalis* n. sp. The lectotype of *R. flaviventris* is designated.

Key words: *Rivellia*; Platystomatidae; East Asia: new species; new status.

Rivellia basilaris (WIEDEMANN, 1830), described from Sumatra, is known to occur over the Oriental and eastern Palearctic Regions. HENDEL (1914) is the only author who described this species in detail, and his concept of *R. basilaris* has been accepted by subsequent authors. However, I have recognized that his redescription is insufficient to establish its identity, because *R. basilaris* var. *flaviventris* HENDEL, 1914, from Singapore is a distinct species and many closely related undescribed species occur in East Asia.

In this paper I redescribe these two known species and describe two allied new species from East Asia. Descriptions of other undescribed species and a key to *R. basilaris* and its allied species will be given in the forthcoming papers of the series. For the terminology, see MCALPINE (1981) and my previous papers (HARA, 1989, 1992). Depositories of the material examined in this paper are abbreviated as follows: HU—Laboratory of Systematic Entomology, Faculty of Agriculture, Hokkaido University, Sapporo; KU—Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka; MU—Entomological Laboratory, Faculty of Agriculture, Meijo University, Nagoya; NSMT—National Science Museum (Natural History), Tokyo; UOP—Entomological Laboratory, College of Agriculture, University of Osaka Prefecture, Sakai.

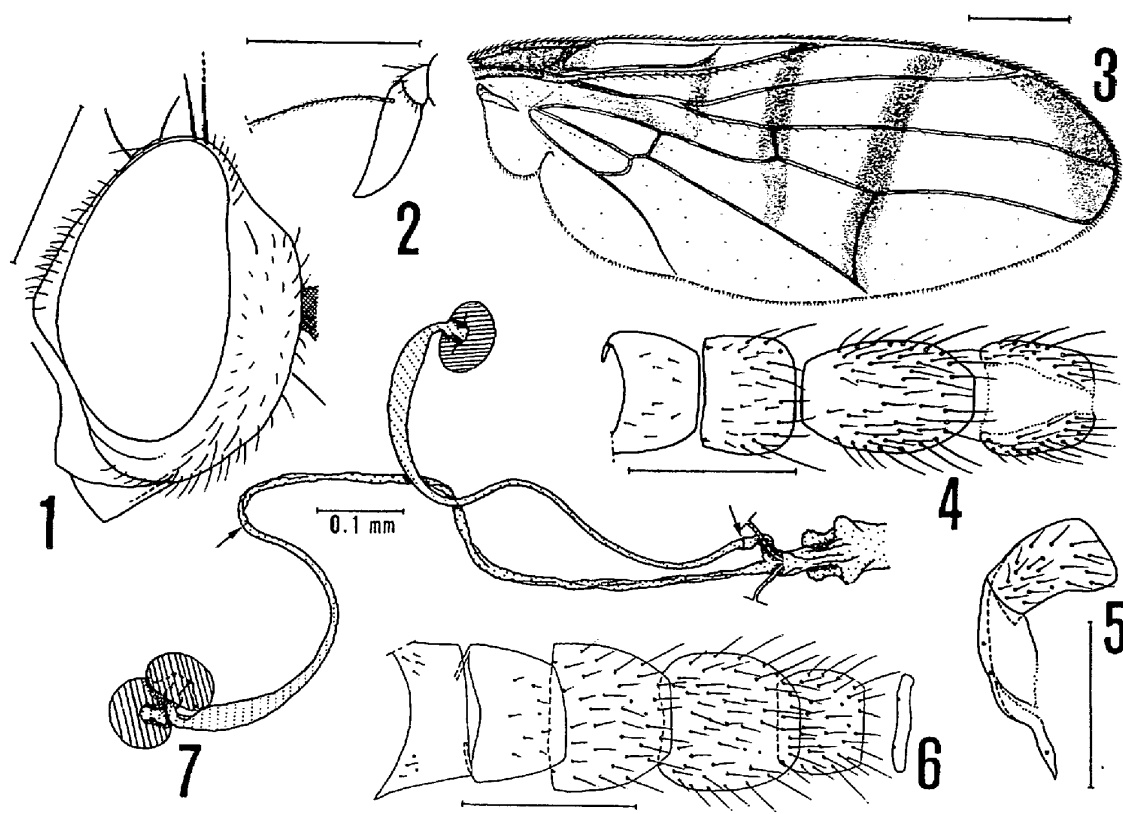
Rivellia basilaris (WIEDEMANN)

(Figs. 1–8, 10–16)

Trypeta basilaris WIEDEMANN, 1830, 510.

Rivellia basilaris: LOEW, 1873, 44.

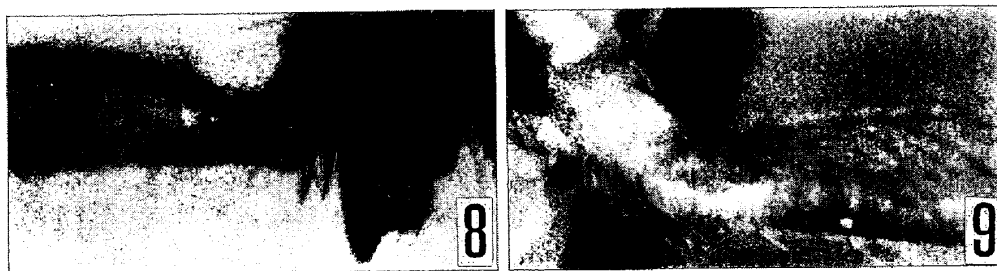
Male (holotype). Body without metallic colored reflections. Head and thorax orange, dark brown on ocellar plate, slightly darkened just in front of transverse suture on scutum. Legs tawny; tibiae dark brown; tarsi darkened apically. Wing



Figs. 1-7. *Rivellia basilaris* (WIEDEMANN) (1-2, 4-5, holotype, male). — 1, Head in profile (reversed); 2, right antenna in lateral view from outside (reversed); 3, right wing; 4, second to fifth abdominal sternites; 5, sixth to eighth abdominal sternites; 6, first to fifth abdominal sternites in female; 7, internal part of female terminalia in dorsal view. All scales refer to 0.5 mm, unless otherwise indicated. Arrows indicate bases of spermathecal ducts.

as in Fig. 3, with blackish brown marking; transverse band over apex of Sc extending posteriorly to M, very weakly connecting with longitudinal stripe on basal part of br along M; transverse band over r-m about as wide as length of r-m at level of R_{4+5} , weakly converging to transverse band over dm-cu posteriorly; transverse band over dm-cu narrowly fused with apical band along C. Calypteres white. Halter orange. Abdomen predominantly blackish brown, reddish orange antero-laterally. Bristles and hairs mostly dark to blackish brown; fine hairs yellowish.

Body 3.6 mm long. Occiput weakly concave dorsally in profile (Fig. 1). Gena 0.13 times as high as head capsule. Parafacial about 1.5 times as wide as diameter of facet of eye. Inner vertical bristle $2/3$ as long as outer one. Posterior front-orbital bristle $4/5$ as long as anterior one. One outstanding bristle occurring on lateral part of postgena. First flagellomere gradually narrowing apically, with apex pointed and dorsal margin concave in lateral view (Fig. 2). Clypeus not pruinulent, with medial height about $2/5$ as long as that of face. Scutum in

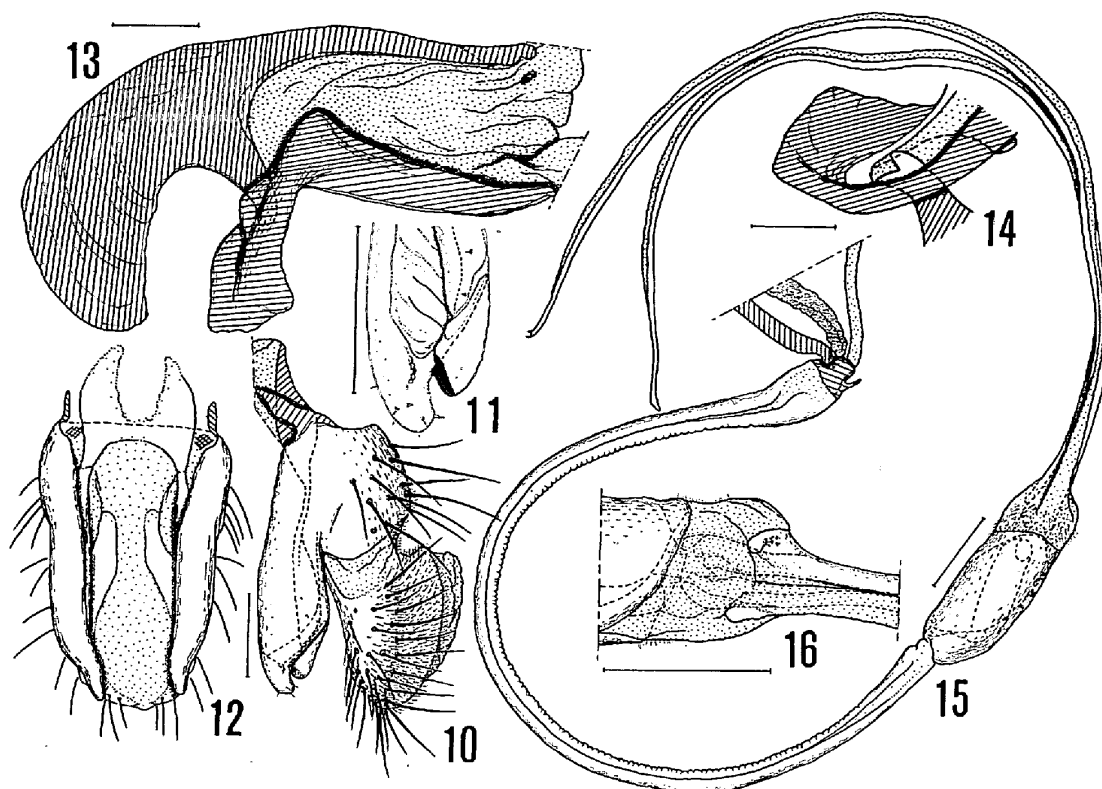


Figs. 8-9. Basal parts of hind legs in male in lateral view. — 8, *Rivellia basilaris* (WIEDEMANN); 9, *R. flaviventris* HENDEL, n. stat.

lateral view with dorsal margin gently rounded in anterior half. Distance between apical scutellar bristles about 1.2 times as long as that between basal and apical scutellar bristles. Hind trochanter with several bristles ventrally as in Fig. 8. Wing 3.3 mm long; distance between apices of R_1 and R_{2+3} longer than that between apices of R_{2+3} and R_{4+5} ; distance between junctions of M with r-m and dm-cu 0.86 times as long as that between junctions of M with bm-cu and r-m. Abdomen: First to fifth tergites sparsely with fine rugulae, not pruinose; ratio of lengths of third to fifth tergites 0.95: 1.0: 1.4; fourth sternite longer than wide and third one (Fig. 4); medial part of fifth sternite devoid of hairs, very weakly sclerotized; sixth sternite narrow (Fig. 5); outer surstylus with short apical projection and with group of minute teeth on inner side at level of prensisetæ (Figs. 10-11); inner surstylus with membranous cleft apically, fused with tenth sternite basally, separated from hypoproct (Figs. 11-12); hypandrium L-shaped in lateral view from left, without lateral sclerites (Figs. 13-14); lateral arms of aedeagal apodeme fused with each other, except at apices; acrophallus very long (Fig. 15); hypoprocts separated from each other (Fig. 12). Bristles and hairs as in usual condition, except for points stated above.

Female. As in male in external appearance, apart from usual sexual differences, but hind trochanter with narrow hairs as in Fig. 9, and in abdomen posterolateral part of first+second syntergite and lateral part of third tergite not hairy as in Fig. 20. Oviscape blackish brown. Abdomen: Fourth tergite shorter than third one, longer than fifth one; fourth sternite about as long as wide, about as wide as third one (Fig. 6); fifth spiracles approaching each other dorsally, distance between them distinctly narrower than distance between sixth ones; spermatheca hemispherical (Fig. 7); spermathecal duct which bears two spermathecae membranous in basal two-thirds, longer than another spermathecal duct.

Variation. Body and legs are darker in the specimens from Ambon, Indonesia as follows: Head and thorax orange brown; venter of thorax, posterior part of scutum, apex of scutellum, mediotergite, and basal parts of mid and hind legs also darkened; abdomen mostly blackish brown, brown on anterior and lateral parts of first+second syntergite. Wing marking: Transverse band over apex of Sc often separated from longitudinal stripe on basal part of br, sometimes not reaching M



Figs. 10–16. Male terminalia of *Rivellia basilaris* (WIEDEMANN) (10, 13–16, holotype). — 10, Posterior part of terminalia in lateral view from left side; 11, apical part of outer surstylus in lateral view from inside; 12, posterior part of terminalia in anterior view; 13, hypandrium in lateral view from left side; 14, anterior part of hypandrium in posterolateral view; 15, aedeagus in lateral view from left side; 16, apical part of glans in lateral view from right side. All scales refer to 0.1 mm.

posteriorly; apical band often separated from transverse band over dm-cu, sometimes separated into small spot on apex of r_1 and short band on wing apex as in Fig. 29. Body length, 2.6–4.2 mm; wing length, 2.3–3.8 mm; gena/head in height, 0.12–0.16; distance between junctions of M with r-m and dm-cu/that between junctions of M with bm-cu and r-m, 0.7–1.0; ratio of lengths of third to fifth abdominal tergites, 1.1–1.2: 1.0: 0.7–0.8 in female, 0.9–1.0: 1.0: 1.3–1.6 in male.

Type material. This species was described on the basis of a single male (ZIMSEN, 1954), which is deposited in the Zoological Museum, Copenhagen. The holotype, which I have seen, bears two white labels, “Mus, Westerm.” and “*T. basilaris* Wied., Sumatra”, and a red label, “Type”.

Other material examined. JAPAN: Honshu—1 ♀, Nagano Pref., Kiso, Outaki, 26. VII. 1981, H. HARA; 1 ♀, Aichi Pref., Kasugai, 2. IX. 1967, T. OKADOME (UOP); 1 ♂, Osaka Pref., Sakai, 28. VIII. 1949, A. MUTUURA (UOP); 1 ♂ 1 ♀, same locality, 21. IX. 1966, KUROKO (UOP); 1 ♂ 2 ♀, same locality, 22. VI. 1981, H. HARA; 14 ♂ 3 ♀, Wakayama Pref., Kiioshima, 3–5. VI. 1982, H. HARA. Kyushu—1 ♂, Fuku-

oka Pref., Fukuoka, 14. VI. 1929, ESAKI, HORI & HASHIMOTO (KU); 2 ♂ 1 ♀, Kagoshima Pref., Kikaigashima 15–16. V. 1955, S. ITO (UOP); 1 ♀, labelled “Kumamoto, H. Kawamura” (HU). Tsushima—1 ♂, 14. VI. 1982, H. HARA. Yakushima—1 ♀, 8. VII. 1970, K. YAMAGISHI (MU). Amami Is.—1 ♀, Yoron Is., 4. VII. 1963, K. YASUMATSU & K. YANO (KU). Ryukyu Is.—1 ♂, Ishigakijima, 19. VI. 1981, T. FUJISAWA (HU). TAIWAN: 1 ♂, labelled “Formosa, Matsumura” (HU); 1 ♀, Hengchun, 13. VII. 1972, H. M. LIN (NSMT). PHILIPPINES: 2 ♀, Luzon, Tagaytay, 7–12. VII. 1970, T. OKADOME (MU). INDONESIA: 1 ♂ 4 ♀, Ambon, 2–6. XII. 1973, S. SHINONAGA (NSMT); 3 ♀, same locality and date, R. KANO (NSMT).

Distribution. This species has been known to occur widely from Ceylon to Samoa and Japan (STEYSKAL, 1977), but previous records must be reconfirmed. I have recognized the occurrence of this species in the following areas: Japan (Honshu, Kyushu, Tsushima Is., Yakushima Is., Amami Is., and Ryukyu Is.); Taiwan; Philippines (Luzon); Indonesia (Sumatra, Ambon).

Biology. The occurrence of this species on soybean, *Glycine max* (LINN.) MERR., was reported in Hokuriku district, Japan by SUGIYAMA and MOCHIZUKI (1949) (see also KOIZUMI, 1957). I also collected some specimens of this species on soybean in Nagano and Osaka Prefectures, Japan. Although SUGIYAMA and MOCHIZUKI (1949) gave this species a Japanese name “daizu-kiro-konryu-bae” [=soybean yellow root-nodule fly], they mentioned that its habit was unknown. They speculated that *R. basilaris* had a life history similar to that of “daizu-konryu-bae” [=soybean root-nodule fly, *R. apicalis* HENDEL], the larva of which fed on the root-nodules of soybean. The root-nodule of soybean has not been confirmed as the larval food of *R. basilaris*.

HOFFMAN (1938) reported that this species was reared from the fruits of hound berry, *Solanum nigrum* LINN. in South China. This must be reconfirmed, because the identity of the species dealt with by HOFFMAN is not entirely clear.

Remarks. This species is distinguished from the other three species treated in this paper by the combination of the following features: Posterior front-orbital bristle 4/5 as long as anterior one; first flagellomere with dorsal margin concave in lateral view; clypeus not pruinulent, about 2/5 as high as face; hind trochater of male with several bristles ventrally; in male abdomen, medial part of fifth sternite devoid of hairs, acrophallus very long; in female abdomen, posterolateral part of first+second sytergite and lateral part of third tergite without distinct hairs, and fourth tergite shorter than third and longer than fifth.

Rivellia scutellaris HENDEL (1933) and *R. basilaroides* HENDEL (1933) from Southeast China were noted by HENDEL as similar to *R. basilaris*. But they are not regarded as close relatives of *R. basilaris*, because they are different from *R. basilaris* in structure as follows: Postgena without outstanding bristles; in male terminalia, lateral arms separated from each other, except at bases, and hypandrium with lateral sclerite on right side.

The following three infraspecific taxa have been described within this species: var. *flaviventris* HENDEL, 1914, from Singapore, var. *perspicillaris* BEZZI, 1928, from Fiji, and ab. *subnigricollis* FREY, 1964, from Palawan, of which the former two are available under the Code. The type specimens of *R. b.* var. *flaviventris* represent a distinct species as detailed below. Judging from the original description, *R. b.* var. *perspicillaris* also appears to be a good species in having the following features: Thorax predominantly black, with red scutellum; transverse band over apex of vein Sc broadly united with longitudinal stripe along vein M. But I do not fully treat it in this paper, because I have not examined any specimens. For *R. b.* ab. *subnigricollis*, FREY (1964) provided a figure of its wing and briefly characterized it as having the "Thorax schwärzlich". The wing of this aberrant form is similar to those of *R. basilaris*, *R. flaviventris* n. stat., and *R. nigrioccipitalis* n. sp. In these three species, the thorax is often more or less darkened as discussed under these species. The status of this aberrant form remains uncertain.

ITO (1947) regarded *R. hashibae* (SHINJI, 1939) as a synonym of this species. But a syntype of *R. hashibae* (female, deposited in the Kyushu University, Fukuoka) represents a distinct species, not closely related to *R. basilaris*.

***Rivellia flaviventris* HENDEL, n. stat.**

(Figs. 9, 17–27)

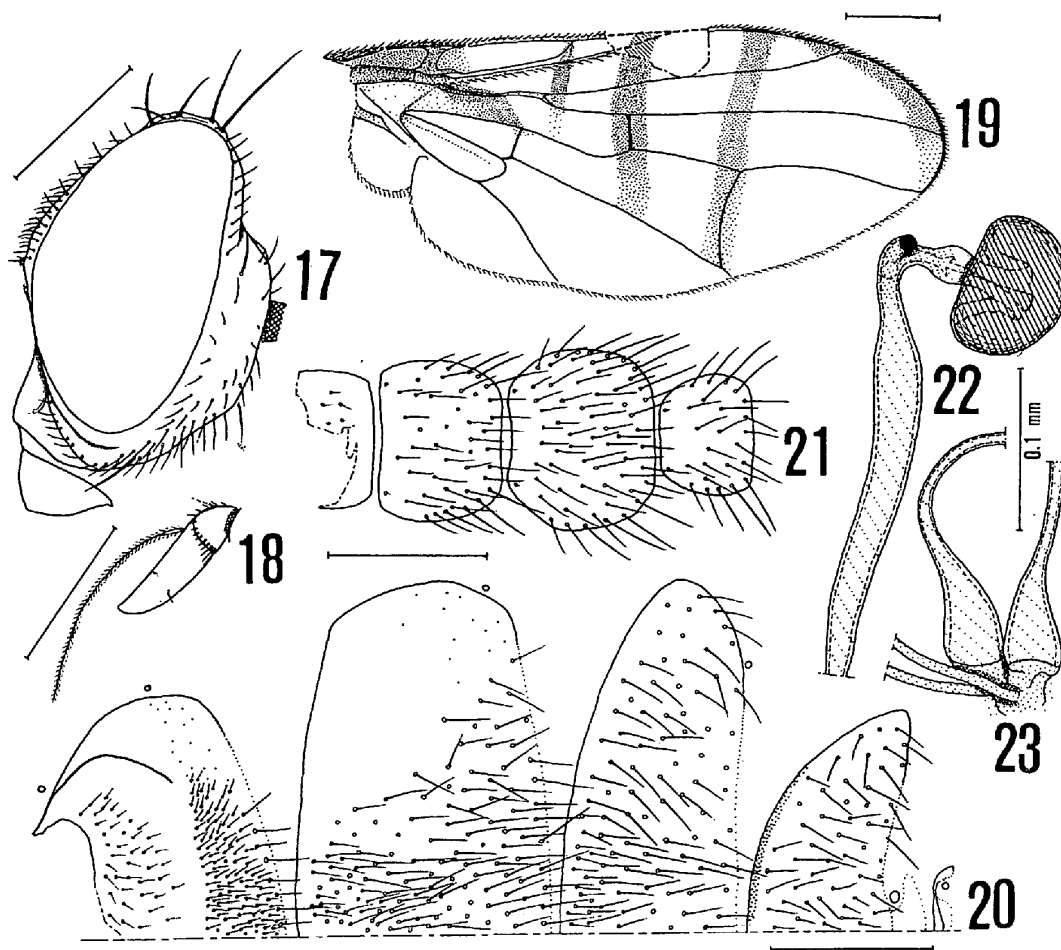
Rivellia basilaris var. *flaviventris* HENDEL, 1914, 155.

Female (lectotype). Similar to *R. basilaris*, but differing from it as follows:

Head, thorax, and abdomen mostly orange; oviscape dark brown. Tibiae slightly darkened. Wing marking (Fig. 19): Transverse band over apex of Sc separated from longitudinal stripe on basal part of br; transverse band over dm-cu separated from apical band.

Body 4.0 mm long. Occiput deeply concave dorsally in profile (Fig. 17). Gena 0.11 times as high as head capsule. Parafacial about as wide as diameter of facet of eye. Front-orbital bristles equal in size. First flagellomere (Fig. 18) with dorsal margin slightly concave in lateral view. Clypeus with whitish pruinescence laterally. Scutum in lateral view with dorsal margin weakly angular anteriorly. Wing 3.3 mm long; distance between junctions of M with r-m and dm-cu as long as that between junctions of M with bm-cu and r-m. Abdomen: First to fifth tergites sparsely rugulose; ratio of lengths of third to fifth tergites 1.5:1.0:0.86 (Fig. 20); fourth sternite wider than long and wider than third (Fig. 21); distance between fifth spiracles slightly narrower than distance between sixth ones; spermathecal ducts equal in length, with thick walls throughout, distinctly thickened basally (Figs. 22–23).

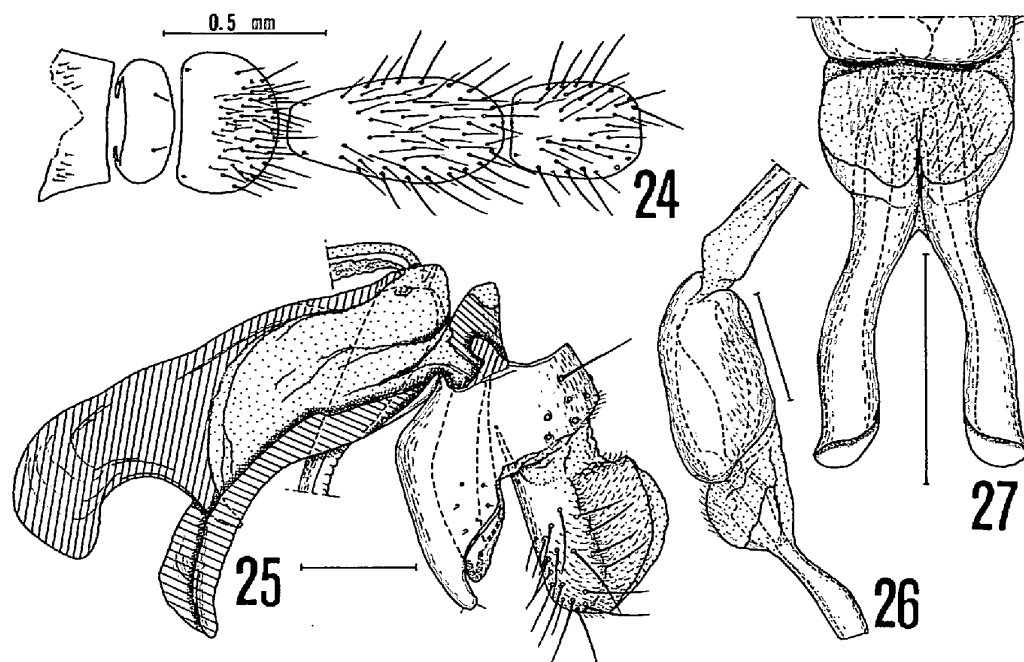
Male. As in female in external appearance, apart from usual sexual differences, but first to fifth abdominal tergites mostly covered with hairs. Abdomen differing from *R. basilaris* as follows: Fourth sternite very long (Fig. 24); fifth sternite sclero-



Figs. 17–23. *Rivellia flaviventris* HENDEL, n. stat. (lectotype, female). — 17, Head in profile; 18, right antenna in lateral view from inside; 19, right wing; 20, first to sixth abdominal tergites and spiracles (dots on tergites indicate hair rudiments or sensory pits); 21, second to fifth abdominal sternites; 22, spermatheca and apical part of left spermathecal duct (one spermatheca missing); 23, basal parts of spermathecal ducts in dorsal view. All scales refer to 0.5 mm, unless otherwise indicated.

tized all over and hairy on most surface; outer surstylus distinctly convex on anterior margin (Fig. 25); hypandrium J-shaped in lateral view from left; apical part of glans constricted basally (Fig. 26); acrophallus short, thickened apically (Figs. 26–27).

Variation. In the specimens from Singapore, Mindanao, Palawan, and Java, coloration of the body and legs is as in the lectotype, but the male fifth abdominal tergite is darkened laterally. The specimens from Japan, Northeast China, Taiwan, Nepal, and Ambon and Celebes, Indonesia are more darkened in both sexes as follows: Head and thorax reddish orange; abdomen blackish brown, orange anterolaterally; venter of thorax, posterior part of scutum, and medial part of mediotergite sometimes darkened; tibiae blackish brown; mid and hind legs sometimes



Figs. 24–27. Male abdomen of *Rivellia flaviventris* HENDEL, n. stat. — 24, First to fifth sternites; 25, terminalia in lateral view from left side; 26, glans in lateral view from left side; 27, apical part of glans in anterior view. All scales refer to 0.1 mm, unless otherwise indicated.

darkened basally. Wing marking: Transverse band over apex of Sc extending near or to M posteriorly; apical band rarely fused with transverse band over dm-cu along C, sometimes separated into small spot on apex of r_1 and short band on wing apex as in Fig. 29. Dorsal margin of first flagellomere sometimes rather concave near apex in lateral view. Scutum rarely with pair of distinct bristles which are located anterolaterally to posterior dorsocentral bristles. In female abdomen, fourth sternite sometimes about as wide as third one, distance between fifth spiracles usually about as long as distance between sixth ones. Body length, 3.0–4.5 mm; wing length, 2.8–4.1 mm; gena/head capsule in height, 0.10–0.13; distance between junctions of M with r-m and dm-cu/that between junctions of M with bm-cu and r-m, 0.8–1.0; ratio of lengths of third to fifth abdominal tergites, 1.2–1.5: 1.0: 0.7–0.9 in female, 0.9–1.0: 1.0: 1.2–1.4 in male.

Type material. *Rivellia basilaris* var. *flaviventris* HENDEL, 1914, was described on the basis of three females, which are deposited in the Hungarian Museum of Natural History, Budapest. I have examined them. The lectotype is designated here: ♀, labelled “Singapore, Biró 1898” and “basilaris W., det. F. Hendel, var. flaviventris, H., typus”. Paralectotypes: 2 ♀, bearing the same labels as the lectotype, but date 1902. Unfortunately these specimens were badly damaged by return mail to the museum (Dr. Á. DELY-DRASKOVITS, personal communication, 1985).

Other material examined. JAPAN: Honshu—1 ♀, Niigata Pref., Ojiya, 23.

VI. 1970, T. NAKANO (MU); 1 ♂, Nagano Pref., Kiso, Outaki, 5. VII. 1982, H. HARA; 1 ♀, Aichi Pref., Jokoji, 4. VI. 1963, Y. YATA (MU); 1 ♀, Osaka Pref., Myoken, 4. IX. 1982, H. HARA; 5 ♂ 3 ♀, Osaka Pref., Amami, 31. VIII.–14. IX. 1982, H. HARA; 1 ♀, Tottori Pref., Daisen, 10. VII. 1950, S. ITO (UOP). Shikoku—1 ♀, Ehime Pref., Jojusha, 5. VIII. 1959, M. OKADA (MU). Kyushu—1 ♂, Fukuoka Pref., Wakakusayama, 6–8. VIII. 1931, ESAKI, HORI, CHO, FUJINO, TAKEYA & HASHIMOTO (KU); 2 ♀, Ooita Pref., Sobosan, 14–16. VII. 1931, ESAKI & FUJINO (KU). Tsushima—4 ♂ 1 ♀, 14–15. VI. 1982, H. HARA. Yakushima—1 ♀, 15. VII. 1970, K. YAMAGISHI (MU). Northeast CHINA: Tantung, IX. 1932, R. KIKUCHI (KU). TAIWAN: 1 ♂, Chiayi, Fennchiihwu, 10. VII. 1979, SUWA (HU); 1 ♀, Taitung, Lanhsu, 20–23. III. 1982, T. FUJISAWA (HU). PHILIPPINES: 1 ♀, Mindanao, Sibulan-Tudaya, 26. VII. 1970, T. OKADOME (MU); 1 ♂, Palawan, Lucia, 31. X. 1975, H. KURAHASHI (NSMT). SINGAPORE: 2 ♂, MATSUMURA (HU). INDONESIA: 1 ♀, Java, Mt. Tjemere, 19–25. XI. 1973, S. SHINONAGA (NSMT); 1 ♀, same locality and date, H. SHIMA (NSMT); 1 ♀, Celebes, Noongan, 2–10. XII. 1973, H. SHIMA (NSMT); 1 ♀, same locality and date, H. KURAHASHI (NSMT); 1 ♀, Ambon, 2–6. XII. 1973, S. SHINONAGA (NSMT). NEPAL: 1 ♂, Puwar, 17. VIII. 1987, E. SUGIYAMA (NSMT).

Distribution. Japan [new record] (Honshu, Shikoku, Kyushu, Tsushima Is., and Yakushima Is.); Northeast China [new record]; Taiwan [new record]; Philippines (Luzon [FREY, 1930], Mindanao [new record], Palawan [FREY, 1930], and Samar [FREY, 1930]); Singapore; Indonesia [new record] (Java, Celebes, and Ambon); Nepal [new record].

Biology. I collected some specimens of this species on cultivated azuki bean, *Phaseolus angularis* WILLD. var. *angularis* WILLD. in Nagano and Osaka Prefectures, Japan.

Remarks. This species is easily distinguished from the other three species treated in this paper in having the pruinulent clypeus.

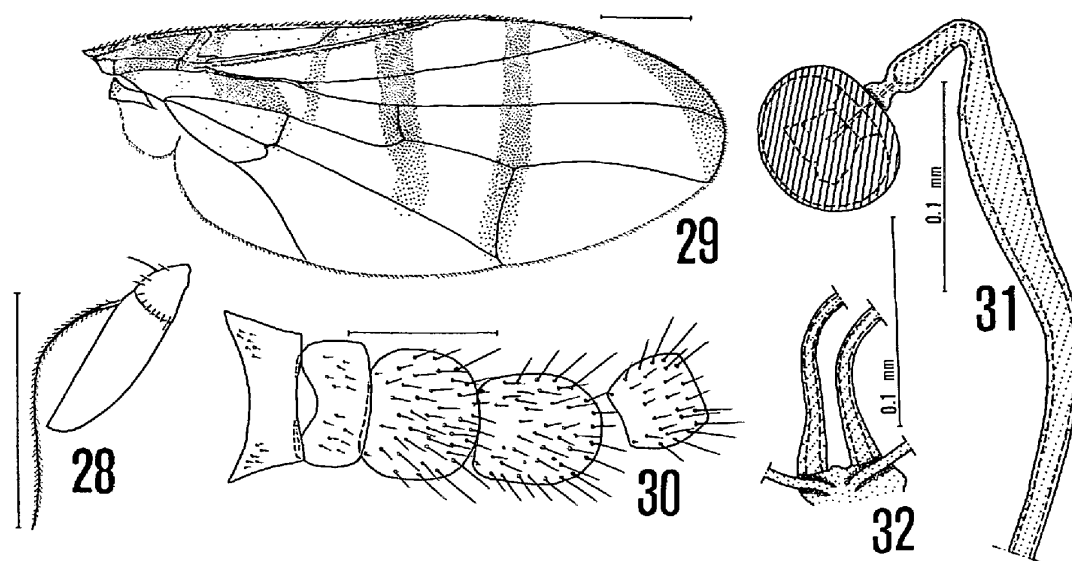
Rivellia nigrioccipitalis n. sp.

(Figs. 28–32)

Female (holotype). Similar to *R. basilaris*, but differing from it as follows:

Head and thorax brownish orange. Frons brown. Occiput dark brown, much darker than scutum. Venter of thorax, posterior part of scutum, mediotergite, basal part of mid leg also darkened. Wing marking dark brown (Fig. 29); small spot present on apex of r_1 ; apical band extending from behind of apex of R_{2+3} to apex of M along C. Halter brown. Abdomen brown; first+second syntergite yellowish laterally.

Body 4.0 mm long. Head as in Fig. 17. Gena 0.11 times as high as head capsule. Occiput in profile deeply concave on upper part. Parafacial narrower than diameter of facet of eye. Front-orbital bristles equal in size. First flagellomere with dorsal



Figs. 29–32. *Rivellia nigrioccipitalis* n. sp. (holotype, female). — 28, Right antenna in lateral view from inside; 29, right wing; 30, first to fifth abdominal sternites; 31, spermatheca and apical part of right spermathecal duct; 32, basal parts of spermathecal ducts in dorsal view. All scales refer to 0.5 mm, unless otherwise indicated.

margin almost straight in lateral view (Fig. 28). Medial height of clypeus about half as long as that of face. Scutum in lateral view with dorsal margin weakly angular anteriorly. Distance between apical scutellar bristles about 1.7 times as long as that between basal and apical scutellar bristles. Wing 3.5 mm long; distance between junctions of M with r-m and dm-cu about as long as that between junctions of M with bm-cu and r-m. Abdomen: First to fifth tergites sparsely rugulose; ratio of lengths of third to fifth tergites 1.3: 1.0: 1.0; fourth sternite slightly longer than wide, narrower than third (Fig. 30); distance between fifth spiracles about as long as distance between sixth ones; spermathecal ducts equal in length, with thick walls throughout, thickened basally (Figs. 31–32).

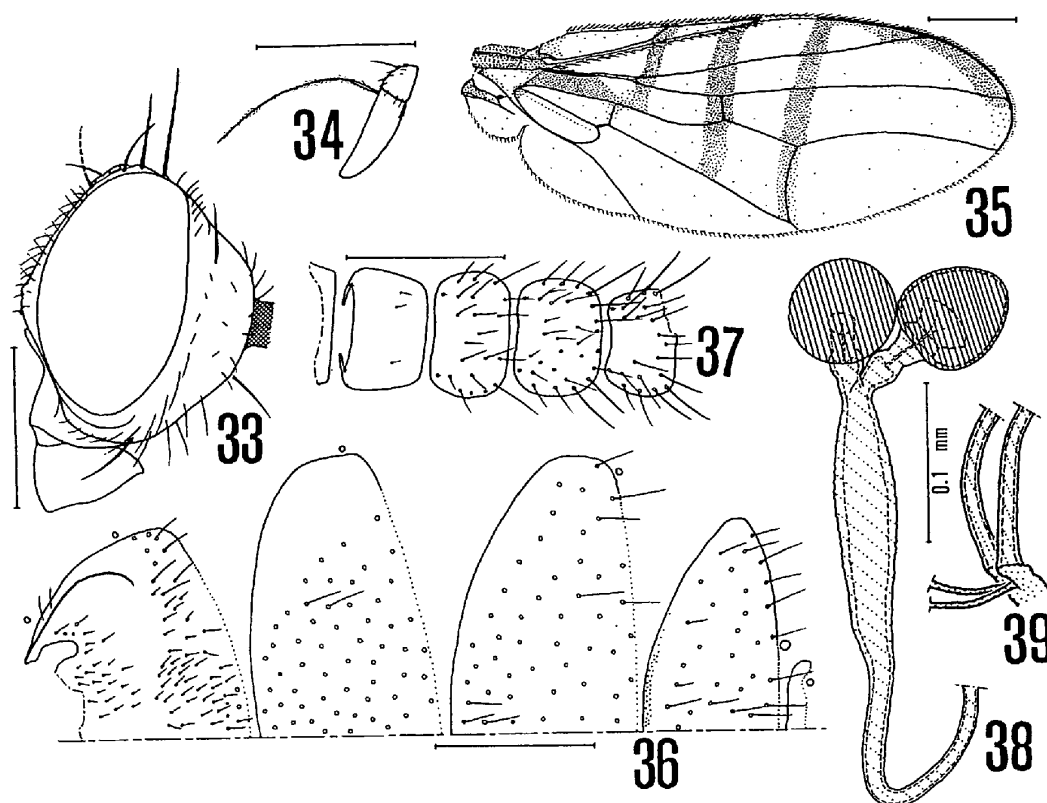
Male. Unknown.

Variation. The paratype (1 ♀) differs from the holotype as follows: Scutum not darkened posteriorly; abdomen brownish orange, except for brown ov scape; body 3.6 mm long; wing 3.2 mm long.

Material examined. Holotype (♀) labelled “Borneo, Sabah, Papar, 50 k SW of Kota Kinabalu, 13–15 Nov. 1975, S. Shinonaga” (NSMT). Paratype 1 ♀, Philippines, Mindanao, 4. II. 1975, S. SHINONAGA (NSMT).

Distribution. Borneo; Philippines (Mindanao).

Remarks. This species is very similar to *R. basilaris* (WIEDEMANN) but differs from the latter as stated above. It is easily distinguished from *R. flaviventris* HENDEL, n. stat. in having the not-pruinescent clypeus and from *R. magniclypeata* n. sp. in having the clypeus about half as high as face.



Figs. 33–39. *Rivellia magniclypeata* n. sp. (holotype, female). — 33, Head in profile; 34, right antenna in lateral view from inside; 35, right wing; 36, first to sixth abdominal tergites and spiracles (dots on fifth tergites indicate sensory pits); 37, first to fifth abdominal sternites; 38, spermathecae and apical part of left spermathecal duct; 39, basal parts of spermathecal ducts in lateral view. All scales refer to 0.5 mm, unless otherwise indicated.

***Rivellia magniclypeata* n. sp.**

(Figs. 33–39)

Female (holotype). Similar to *R. basilaris*, but differing from it as follows:

Abdomen brown, paler posterolaterally. Oviscape brown. Wing marking dark brown (Fig. 30); transverse band over apex of Sc fused with longitudinal stripe on basal part of br along M; transverse band over r-m almost parallel with transverse band over dm-cu.

Body 3.6 mm long. Gena 0.11 times as high as head capsule (Fig. 33). Para-facial narrower than diameter of facet of eye. First flagellomere with dorsal margin slightly concave in lateral view (Fig. 34). Medial height of clypeus about 2/3 as long as that of face. Distance between apical scutellar bristles about 1.6 times as long as that between basal and apical scutellar bristles. Wing 3.2 mm long; distance between junctions of M with r-m and dm-cu 0.71 times as long as that

between junctions of M with bm-cu and r-m. Abdomen: First+second syntergite mostly hairy (Fig. 36); lateral part of third tergite without hairs; ratio of lengths of third to fifth tergites, 0.92: 1.0: 0.68; fourth sternite wider than long, slightly narrower than third one (Fig. 37); distance between fifth spiracles much longer than distance between sixth ones (Fig. 36); spermatheca long oval in lateral view, narrowing apically, about as long as thick (Fig. 38); spermathecal ducts equal in length, with thick walls throughout, slightly thickened basally (Fig. 39).

Male. Unknown.

Material examined. Holotype (♀) labelled "Kuala Bok, Sarawak, 1. III. 1969, T. Kunou et Y. Arita leg." (MU).

Distribution. Borneo.

Remarks. This species is distinguished from the other three species treated in this paper in having the following characters: Clypeus $\frac{2}{3}$ as high as face; in female abdomen, first+second syntergite with hairs posterolaterally, and spermatheca long oval.

Acknowledgements

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